

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 21

PATENT NO. : 7,436,492 B2
 APPLICATION NO. : 10/599,530
 ISSUE DATE : Oct. 14, 2008
 INVENTOR(S) : Braunecker, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page

Item (75) Inventors, change "Berneck" to --Marbach--

ABSTRACT, change "on to a target" to --onto a target-- (line 4)

~~Replace Figure with the figure depicted herein below, wherein the reference 2 has been added.~~~~Delete Title Page and substitute The Attached Title Page therefor~~Column 1

Line 26, change "air-or" to --air- or--

MAILING ADDRESS OF SENDER (Please do not use customer number)

Robert Burns Israelsen, WORKMAN NYDEGGER
 100 Eagle Gate Tower
 60 East South Temple
 Salt Lake City, Utah 84111

NOV 28 2008

This collection of information is required by 37 C.F.T. 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 C.F.R. 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 24

PATENT NO. : 7,436,492 B2
APPLICATION NO. : 10/599,530
ISSUE DATE : Oct. 14, 2008
INVENTOR(S) : Braunecker, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 2

Line 6, change "on to" to --onto--

Line 49, change "component" to --components--

Line 56, change "of transmitter" to --of the transmitter--

Line 65, change "achieved, according" to --achieved, or the achievements are further developed, according--

Lines 66-67, change "Claims or the achievements are further developed." to --Claims.--

Column 4

Line 62, change "FIG. 3" to --FIG. 4--

Drawings

Delete sheet 2 and replace with attached sheet 2.
Sheet 2, (replace Figure 3) with the figure depicted herein below, wherein the reference ~~2~~ has been added.

MAILING ADDRESS OF SENDER (Please do not use customer number)
Robert Burns Israelsen, WORKMAN NYDEGGER
100 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111

NOV 28 2008

This collection of information is required by 37 C.F.T. 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



US007436492B2

384

(12) **United States Patent**
Braunecker et al.

(10) **Patent No.:** US 7,436,492 B2
(45) **Date of Patent:** Oct. 14, 2008

- (54) **ELECTRONIC DISTANCE METER
FEATURING SPECTRAL AND SPATIAL
SELECTIVITY**
- (75) Inventors: **Bernhard Braunecker**, Rebstein (CH);
Peter Kipfer, Bernack (CH)
- (73) Assignee: **Lelca Geosystems AG**, Heerbrugg (CH)
- (*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

4,611,912 A *	9/1986	Falk et al.	356/5.09
5,633,706 A *	5/1997	Cho et al.	356/5.01
5,903,996 A *	5/1999	Morley	42/115
6,111,692 A *	8/2000	Sauter	359/429
6,181,412 B1 *	1/2001	Popescu et al.	356/4.09
2003/0067645 A1 *	4/2003	Ibsen et al.	359/124
2004/0130702 A1 *	7/2004	Jupp et al.	356/5.01
2004/0213527 A1 *	10/2004	Martinsson	385/100
2004/0246495 A1 *	12/2004	Abe	356/603

- (21) Appl. No.: **10/599,530**
- (22) PCT Filed: **Apr. 1, 2005**
- (86) PCT No.: **PCT/EP2005/051478**

§ 371 (c)(1),
(2), (4) Date: **Dec. 30, 2006**

- (87) PCT Pub. No.: **WO2005/096009**

PCT Pub. Date: **Oct. 13, 2005**

- (65) **Prior Publication Data**
US 2007/0188735 A1 Aug. 16, 2007

Related U.S. Application Data

- (60) Provisional application No. 60/558,580, filed on Apr.
2, 2004.
- (51) Int. Cl. **G01C 3/08** (2006.01)
- (52) U.S. Cl. **356/4.01; 356/5.01; 356/5.1;
342/118**
- (58) Field of Classification Search **356/5.01,
356/4.01**
- See application file for complete search history.

- (56) **References Cited**

U.S. PATENT DOCUMENTS

4,450,460 A * 5/1984 Morimoto 250/338.1

FOREIGN PATENT DOCUMENTS

DE	102 00 632 A	7/2003
FR	2844603 A	3/2004

OTHER PUBLICATIONS

Noriaki Nishi, Takahisa Jitsuno, Masahiro Nakatsuka and Sadao Nakai, "Improvement of Laser-Beam Irradiation-Intensity Distribution Using Multi Lens Array and Edge-Shaped Plates", [Optical Review vol. 5, No. 5 (1998) 285-290].*

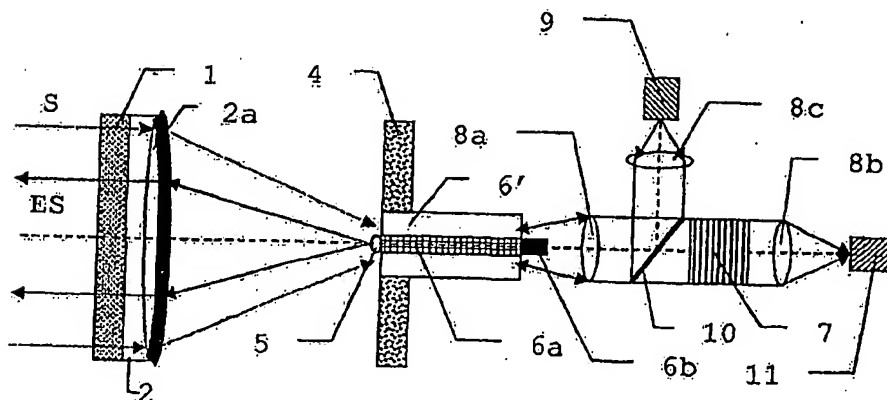
(Continued)

Primary Examiner—Thomas H. Tarcza
Assistant Examiner—Timothy A Brainard
(74) *Attorney, Agent, or Firm*—Workman Nydegger

- (57) **ABSTRACT**

Disclosed is a distance meter, particularly for telescope arrays in ground-based or space-based applications for detecting surfaces. Said distance meter comprises at least one radiation source for emitting electromagnetic radiation on to a target that is to be measured, a receiver unit with a sensor for receiving the radiation reflected by the target and deriving distance data, and a first spectral filter component. According to the invention, the angular spread of reception of the reflected radiation is limited by means of at least one spatial filter component, especially a fiber laser as a radiation source and receiver component.

18 Claims, 2 Drawing Sheets



4074

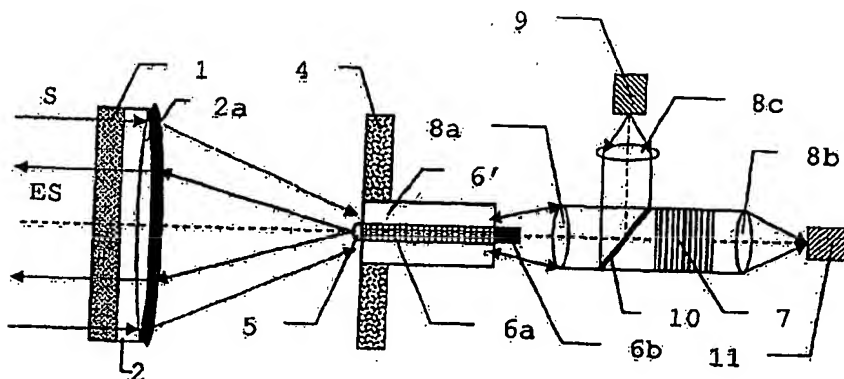


Fig. 3

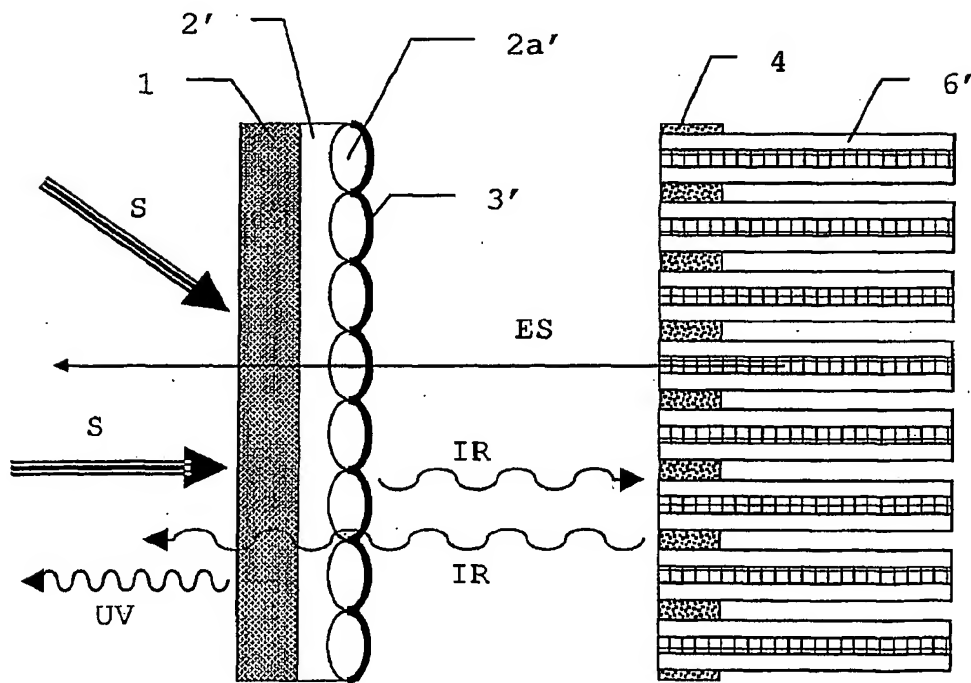


Fig. 4